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AMSAT NEWS SERVICE
ANS-323

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor(a)amsat.org

Please, share your copy of ANS with an Educator near you!

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SB SAT @ AMSAT $ANS-323.01
ANS-323 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 323.01
>From AMSAT HQ SILVER SPRING, MD.
DATE, 2012
To All RADIO AMATEURS
BID: $ANS-323.01

FITSAT-1 (NIWAKI) plans to flash the LEDs on Christmas Eve.

During a recent exchange discussing FITSAT-1 on the AMSAT-BB, Kevin Deane, KF7MYK asked, "When is the LED MORSE supposed to happen?," FITSAT-1 creator Professor Takushi Tanaka, JA6AVG, promptly replied "We plan to flash the LEDs on Christmas Eve. So we will start testing around the end of this month."

The LED optical array may be visible to the unaided eye.

There has been much discussion about FITSAT-1 being received in the USA on 5.8GHz. However another part of FITSAT-1's mission is to flash the message "Hi this Niwaka Japan" using its array of stacked LEDs. Whereas, the Morse broadcast has "no practical aim," Tanaka, and his team of Japanese students, think it would make a good emergency beacon for natural disasters (or, more worryingly, alien invasions).

The FITSAT-1 CubeSat was developed by students at the Fukuoka Institute of Technology (FIT) in Japan. In addition to the LED array it also has a CW beacon on 437.250 MHz, a data link on 437.445 MHz and

a 5840.0 MHz data downlink.

Further FITSAT-1 information is on-line at:
http://www.fit.ac.jp/~tanaka/fitsat.shtml

[ANS thanks Kevin, Deane, Takushi Tanaka, Jaonne Maenpaa and AMSAT-
BB for the above information]

Space Education A Key To The Future

Educators, who effectively use space themes to inspire students and strengthen lesson plans, have a great opportunity for additional support from the nation's premier space advocacy organization.

The Space Foundation is now accepting applications
for its 2013 flight of Teacher Liaisons. This will be the
10th year of this prestigious, nationally recognized program that provides an honored
few educators numerous benefits and privileges, helps strengthen their teaching skills, builds re'sume's and influences education at a national level.

Pre K-20 teachers and other professional or informal educators in the Pre K-20 arena are eligible to be Space Foundation Teacher Liaisons.

Teacher Liaisons tend to be Master Teachers who want to

inspire the next generation of students to pursue and excel in the areas of science, technology, engineering and math (STEM).

Teacher Liaisons do not need to be science or math teachers; they need only to have a desire to integrate space education within their curriculum.

Space Foundation Teacher Liaisons serve as active links between the Space Foundation, NASA and their schools and school districts.

This influential role includes numerous benefits, privileges and activities such as special recognition during the 29th National Space Symposium, to be held at The Broadmoor Hotel in Colorado Springs, Colorado, April 8-11, 2013.

There is no fee to apply, or membership cost.
http://www.spacefoundation.org/educationtemp/tls/user/

http://www.satmagazine.com/2012/SM_Nov2012.pdf

[ANS thanks November 2012 SatMagazine for the above information]

Reminder - Call for Photos From Space Symposium and KSC Tour

The AMSAT Journal looks forward to publishing selected photos of our 2012 Space Symposium, General Meeting, and the Kennedy Space Center tour. Work is under way for photo and story coverage of these events in the Journal being planned for the January timeframe.

A few have already sent your photos or links to your on-line album
I have them ... thanks! There will be space for many more photos so
please send them in (if you have not done so).

Select 5-6 of your favorite photos and add a couple of your personal
comments about what you found interesting or cool. The comments can
just be text in the e-mail message ... no formatting is required.

Alternatively, if you use any of the on-line photo album sites you
could just send me the URL for that. I can go there to select photos
but I would appreciate a comment from you about which ones you may
recommend.

Send your input to the Journal In-Box - journal(a)amsat.org - by
December 1. If your message is not getting through due large sized
attachments several smaller e-mail messages are acceptable. You may
also contact me off-list and I'll supply another e-mail address to
try.

[ANS thanks AMSAT Journal Editor JoAnne, K9JKM for the above
information]

November 20 Deadline for Proposals in NASA's Cubesat Initiative

NASA is seeking proposals for small satellite payloads to fly on
rockets planned to launch between 2013 and 2016. These miniature
spacecraft, known as CubeSats, could be auxiliary payloads on pre-
viously planned missions.

CubeSats are a class of research spacecraft called nanosatellites.
These cube-shaped satellites are approximately four inches long,
have a volume of about one quart and weigh less than three pounds.

Proposed CubeSat investigations must be consistent with NASA's Stra-
tegic Plan and the NASA education vision and goals. The research
must address aspects of science, exploration, technology develop-
ment, education or operations.

Applicants must submit proposals electronically by 4:30 p.m. EST,
Nov. 20, 2012. NASA will select the payloads by Jan. 31, 2013. Sel-
ection does not guarantee a launch opportunity. The selected space
craft will be eligible for flight after final negotiations when a
launch opportunity arises. NASA will not provide funding for the
development of the small satellites.

NASA recently announced the results from the third round of the
CubeSat Launch Initiative. From the first three launch initiatives,
64 payloads made the short list for launch opportunities between
2011 and 2014. They are eligible for launch pending an appropriate
opportunity and final negotiations. The satellites come from 25
states: Alabama, Alaska, California, Colorado, Florida, Hawaii,
Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts,
Michigan, Missouri, Montana, North Dakota, New Hampshire, New Mex-
ico, New York, Ohio, Pennsylvania, Texas, Utah, Vermont and Virginia.

For additional information about NASA's CubeSat Launch Initiative
program, visit:
http://go.nasa.gov/puk9K2 and http://go.nasa.gov/CubeSatOp.

[ANS thanks the NASA Education Express Message for Nov. 8, 2012 for
the above information]

Indonesia Announces Plans for 2013 Launch

The Indonesian National Society, ORARI, submitted a report during the IARU Region 3 conference in Viet Nam mentioned the amateur radio satellites they hope will be launched in 2013:

http://www.iaru-r3.org/15r3c/docs/025.doc

ORARI is supporting LAPAN, the Indonesian Space Agency, to launch satellites as follows:

+ Satellite LAPAN - A2 (will be launched Mid 2013)
  Telemetry 437.425 MHz

+ Satellite LAPAN - ORARI (will be launched Mid 2013)
  Downlink Voice 435.880 MHz
  Uplink Voice   145.880 MHz
  APRS   145.825 MHz
  Telemetry   437.325 MHz

These satellites are planned for low inclination orbits which may limit access from high latitude countries.

[ANS thanks Trevor, M5AKA for the above information]

2012 AMSAT Symposium Proceedings Available in the AMSAT Store

The Proceedings of the AMSAT-NA 30th Symposium and AMSAT-NA Annual Meeting, October 26-28 in Orlando, Florida have been put in the on-line AMSAT Store. Please visit the store at:
http://store.amsat.org/catalog/

The proceedings contains over 30 articles on subjects ranging from current satellite operations to updates on the Fox Project.

If you could not make the meeting, this is a great source of the latest information.

Price is $25 + $12 Shipping for USA. See the details on the store web page and order your copy today!

[ANS thanks Martha at the AMSAT Office for the above information]

SSTV Images from the ISS Nov 2012

My fascination with ham radio and the International Space Station stepped up a notch today, as I was able to receive and decode my first image from the ISS.

Occasionally, the astronauts aboard the ISS turn on the SSTV (Slow Scan TV) equipment on their amateur radio station and beam signals from their vantage point back down to us amateurs on the ground.

After being tipped off via the ISS Fan Club website that SSTV was active, I calculated a suitable overhead path and connected the audio output of my 2 metre rig to the soundcard on my PC, and tuned in. The frequency in use for the downlink was 145.800MHz, and I set up a digital recorder to capture the received audio.

Without too much fiddling about, the image was received pretty well, with only a tiny bit of noise, and a fairly minor image attribute on the left.

[ANS thanks Essex Ham (and Trevor, M5AKA) for the above information]

ARISS UPDATES

Successful ARISS Contact for 1 Circolo Didattico G.Marconi, Casamassima, Italy

Friday November 9, 2012 at 12:53 UTC, which is 13:53 CEST, students from 1 Circolo Didattico G.Marconi, Casamassima, Italy established ARISS contact with JAXA astronaut Akihiko Hoshide KE5DNI onboard the International Space Station. Astronaut Akihiko Hoshide KE5DNI operated with the ISS callsign OR4ISS. This was a direct contact performed by amateur radio club station IZ7RTN installed at "Cittadella Mediterranea della Scienza", University of Bari, Italy.

The Didactic Center "Marconi" in Casamassima di Bari, South Italy includes one Primary School and two Nursery Schools. There are more than 800 students and a teaching staff of 70 teachers, directed by headmaster Mrs. Rita Rosaria Gagliardi. The Primary School has multimedia and scientific laboratories, while the students play an active role in a number of projects on Science, Music, Dance, Theatre, Physical Education and more.

Mr. Michele Mallardi IZ7EVR, radio contact coordinator for this event, decided in favor of the setup for a direct contact, with assistance from the ARISS telebridge station IK1SLD installed at Casale Monferrato Airport, Piemonte, Italy.

The contact took place at "Cittadella Mediterranea della Scienza", University of Bari, where an audience of about 250 students, visitors and Media, including 12 Italian Air Force officers, participated to the ARISS contact. Before the link voice with ISS, Mr. Michele Mallardi IZ7EVR presented ARISS program, the operations during an contact with the ISS via Ham Radio, and the life of the astronauts in space.

At 12:53 UTC, contact with OR4ISS was established by station IZ7RTN. Using the Kenwood radio in the Service Module, Akihiko Hoshide KE5DNI answered all 20 questions from the students, exchanged final greetings and closed the contact. During the pass, the signal from the ISS was loud and clear.

Live streaming video was available on:
http://www.cittadellamediterraneascienza.it/webtv.html

ARISS contact was announced by web story on ESA Portal - National

News: http://www.esa.int/esaCP/SEML9F62Q8H_Italy_0.html

Congratulations to the schools staff, ARISS Puglia Team!

Successful ARISS contact for Italian Schools in Govone, Priocca and Diano d'Alba, Italy

Thursday November 8, 2012 at 12.04 UTC, which is 13.04 CEST, students from Institute Comprehensive in Govone, Nino Costa Middle school in Priocca and Institute Comprehensive in Diano d'Alba, Italy established ARISS contact with JAXA astronaut Akihiko Hoshide KE5DNI onboard the International Space Station.

Astronaut Akihiko Hoshide KE5DNI operated with the ISS callsign OR4ISS. This was a direct contact performed by amateur radio station IK1SLD, installed for the event in Planetarium in Turin, Italy.

The two Junior High schools Nino Costa of Priocca and T.L. Dalmasso of Govone are integral part of the Comprehensive School of Govone in the province of Cuneo. The municipal territories of the Comprehensive School of Govone are situated on the left bank of the river Tanaro; this district, which is a hil country, is called "Roero" and it's famous for its fine wines. The inhabitants live mostly in the plein where the schools can also be found while on the top of the hill there is the old town center where is the towmhall. The students came from the small towns of Govone, Priocca, Magliano Alfieri, Castellinaldo, San Damiano. The school is attended by about 300 pupils, aged between 3 and 13 years.

Mr. Claudio Ariotti IK1SLD, radio contact coordinator for this event, decided in favor of the setup for a direct contact, with assistance from the his ARISS telebridge station (IK1SLD) installed at Casale Monferrato Airport, Piemonte, Italy and operated by Max Canepa IW1CNF.

The contact took place at Planetarium in Turin, where an audience of about 200 students, visitors and Media participated to the ARISS contact. Before the link voice with ISS, Mr. Claudio Ariotti IK1SLD presented ARISS program, the operations during an contact with the ISS via Ham Radio, and the life of the astronauts in space.

At 12:04 UTC, contact with OR4ISS was established by station IK1SLD. Using the Kenwood radio in the Service Module, Akihiko Hoshide KE5DNI answered all 20 questions from the students, exchanged final greetings and closed the contact. During the pass, the signal from the ISS was loud and clear.

Live streaming video was available on:
http://www.livestream.com/AMSAT_Italia

Video of the contact is available also here:
http://www.livestream.com/AMSAT_Italia

ARISS contact was announced by web story on ESA Portal - National News: http://www.esa.int/esaCP/SEML9F62Q8H_Italy_0.html

Congratulations to the school's staff, ARISS Team IK1SLD and ARI Casale!

73

Francesco De Paolis, IK0WGF
ARISS mentor

[ANS thanks ARISS for the above information]

Amateur Radio Newsline Covers ARISS

The November 9 Amateur Radio Newsline report #1839 included an item about the upcoming ARISS contact with students in Gujarat, India on November 14.The article, Ham Radio in Space: First Time Ever India to ISS Student Contact may be viewed at: http://www.arnewsline.org/storage/scripts/nsln1839.txt

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Live Internet Coverage of ARISS Contacts

John Spasojevich, AG9D, who does the live internet audio distribution of the ARISS contacts, provided this summary of the audio sources where you may listen.

+ EchoLink *AMSAT* node (101377)
+ Echolink *JK1ZRW* node (277208)
+ IRLP Node 9010 Discovery Reflector Streaming Audio:
  https://sites.google.com/site/arissaudio/

Audio on Echolink & web stream is generally transmitted around 20 minutes prior to the contact taking place so that you can hear some of the preparation that occurs.

IRLP will begin just prior to the ground station call to the ISS.

Please note that on Echolink there are automatic breaks of 1.5 seconds in the audio transmission. These occur every 2.5 minutes during the event. Breaks on IRLP are manual and occur approximately after every third question.

John invites anyone interested in more info on how to hear the live ARISS contact to send an email him at: johnag9d(a)gmail.com.

[ANS thanks John Spasojevich, AG9D for the above information]

US Postal Department Proposes to Discontinue IRCs

ATTENTION DX'ers who mail to foreign countries for QSL cards:

If the US Postal Service (USPS) gets its way, it will no longer sell International Reply Coupons (IRCs) after January 27, 2013. According to the October 23 edition of the Federal Register, there is not sufficient demand for the USPS to continue offering IRCs to customers; however, per the Universal Postal Union (UPU) regulations, the USPS must continue to exchange (redeem) IRCs that have been purchased in foreign countries and presented at USPS facilities. The current Nairobi model is valid through December 31, 2013. Comments on this proposed change will be accepted http://www.regulations.gov/#!submitComment;D=USPS-2012-0101-0001 through November 23, 2012.

IRCs provide foreign addressees with a prepaid means of responding to inquiries, solicitations or other types of communications -- such as QSL cards -- that are initiated by US senders. IRCs are exchangeable for postage stamps by postal administrations in member countries of the UPU. Each IRC is equivalent in value to the destination country's minimum postage price for an unregistered airmail letter. The purchase price is in the US is currently $2.20 per IRC. -- Thanks to The Daily DX for some information.

You have until November 23rd to submit your comments on this proposal.
http://www.regulations.gov/#!submitComment;D=USPS-2012-0101-0001

[ANS thanks the American Radio Relay League for the above information]

Satellite Shorts From All Over

+ MP3 archives of the AMSAT-UK 80M net can be found at:
  http://www.dit-dit-dit.com/Downloads.aspx

+ Simon Brown, HB9DRV posted a demo of his SDR-Radio, V2 software
  at: http://www.youtube.com/watch?v=jj5boD62bSY&feature=plcp

+ An SSTV image received November 9 from the ISS on 145.800 along
  with a short video can be seen at:
  http://www.essexham.co.uk/news/images-from-the-iss-nov-2012.html
  (Trevor M5AKA)

+ The bright morning star is Venus. The bright evening star is
  Jupiter.

+ IARU Region 3 conference paper from their recent meeting in Viet
  Nam are available on-line:
  o KiwiSAT - A Project of AMSAT-ZL at:
    http://www.iaru-r3.org/15r3c/docs/035.doc
  o Other IARU Region 3 conferences papers can be read at:
    http://www.iaru-r3.org/15r3c/docs/docs.htm
  o A picture of the delegates is at:
    http://www.dermandar.com/p/bByKak

+ iPhone interface for Ham Radios
  Thomas N2YTF, vice president of the Hall of Science Amateur Radio
  Club, demonstrated his iPhone interface at the recent Maker Faire
  at the New York Hall of Science in Queens.
  Read the article "Tinkerer Invents iPhone Interface for Ham Radios"
  http://tinyurl.com/cujjneo

+ A Private Affair For Russia
  The first Russian satellite, manufactured by a private company for
  private funds will be put into orbit in 2014, most probably onboard
  the "Progress" state-owned cargo vehicle-so believes "Sputniks"
  General Director Andrei Potapov.
  http://www.satmagazine.com/2012/SM_Nov2012.pdf - Page 19

+ The Photo Reconnaissance Satellites of the USS/Russia
  Similar to the United States, the former Union of Socialist Soviet
  Republics recognized the value of military reconnaissance satellites
  early in their development of spaceflight.
  http://www.milsatmagazine.com/2012/MSM_Oct2012.pdf - Page 48

+ Fun with model rockets and an iPhone

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  Make: Projects community member Mike Westerfield shared a pair of
  intriguing how-tos detailing how to fly a TI SensorTag and an iPhone
  on a model rocket to find acceleration, rotation, and pressure, then
  collect and analyze the data using a Bluetooth link to the iPhone
  and techBASIC.
  http://tinyurl.com/bgf3xam

+ Saturn V Moon Rocket Inforgraphic
  http://tinyurl.com/ctybpo7

[ANS thanks everyone for the above information]



/EX

In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining
donors to AMSAT Project Funds, will be eligible to receive addi-
tional benefits. Application forms are available from the AMSAT
Office.

Primary and secondary school students are eligible for membership
at one-half the standard yearly rate. Post-secondary school students
enrolled in at least half time status shall be eligible for the stu-
dent rate for a maximum of 6 post-secondary years in this status.
Contact Martha at the AMSAT Office for additional student membership
information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org
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